

Catalog of State Actions Energy Supply Technical Working Group

A catalog of state-level, GHG-reducing actions and policy options based on actions undertaken or considered by state, local and private actors.

Key to Future Rankings of Options in the Tables that Follow:

Potential GHG Emission Reductions <u>1/</u>	Potential Cost or Cost Savings <u>1/ 2/</u>
High (H): At least 1.0 million metric tons (MMt) carbon dioxide equivalent (CO ₂ e) per year by 2020 (~1% of current WA emissions)	High (H): \$50 per metric ton CO ₂ e (tCO ₂ e) or above
Medium (M): From 0.1 to 1.0 MMtCO ₂ e per year by 2020	Medium (M): \$5-50/tCO ₂ e
Low (L): Less than 0.1 MMtCO ₂ e per year by 2020, or 1 MMtCO ₂ e by 2050	Low (L): Less than \$5/tCO ₂ e
Uncertain (U): Not able to estimate at this time	Negative (Neg): Net cost savings
	Uncertain (U): Not able to estimate at this time
1/ Several measures may overlap in terms of emissions reductions and/or cost impacts. Estimates assume measures would be implemented independently from other measures.	
2/ Costs are denoted by a positive number. Cost savings (i.e., “negative costs”) are denoted by a negative number.	

Definition of “Priorities for Analysis”:

- **High:** High priority options will be analyzed first.
- **Medium:** Medium priority options will be analyzed next, time and resources permitting.
- **Low:** Low priority options will be analyzed last, time and resources permitting.

Notation of Options:

* **Options marked in bold an asterisk (*):** includes major state actions already approved or underway, as described in *Generic Descriptions of Catalog Option for Energy Supply TWG.*

** **Options marked with two asterisks (**):** includes other actions undertaken at some level in Washington State.

*** **Options marked with three asterisks (***):** includes strategies currently under serious consideration by the state legislature, state or local agencies, or private actors. \

Distinctions are made between statewide (S) and local (L) policies where appropriate.

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions in WA State
ES-1	EMISSIONS POLICIES AND OVERARCHING ITEMS					
1.1	GHG cap and trade					WA is part of the Western Regional Climate Action Initiative (2007), which will consider market-based mechanisms for GHG reduction goals.
1.2	Carbon (GHG) tax					
1.3	Generation performance standards and/or mitigation requirements for electricity *(S)					SB6001 (2007) includes emissions performance standard for long-term financial commitments for baseload power HB 3141 (2004), EFSEC, Ecology establish rules for mitigation or offsetting of new power plant emissions
1.4	Integrated resource planning (IRP) *(S)					Electric Utility Planning Act (2006) requires IRPs by large utilities
1.5	Voluntary GHG commitments					
1.6	Technology Research & Development					
ES-2	RENEWABLE ENERGY AND ENERGY EFFICIENCY					
2.1	Renewable and/or Environmental Portfolio Standard (RPS/EPS)*(S)					2006 Energy Independence Act (Initiative 937) establishes RPS/EPS; rule-making currently underway
2.2	Grid-based renewable energy incentives and/or barrier removal*(S)					Incentives provided through Renewable Energy System Cost Recovery (RCW 82.16.110) and Tax on Manufacturers or Wholesalers of Solar Energy Systems.
2.3	Distributed renewable energy					See 2.2 above.

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions in WA State
	incentives and/or barrier removal*(S)					
2.4	Green power purchases and marketing					Washington State RCW 19.29A.090 directs larger electric utilities to offer their customers a green power electricity product
2.5	Combined Heat and Power (CHP) standards, incentives and/or barrier removal					
2.6	Pricing strategies to promote renewable energy and/or CHP (e.g. net metering)*(S)					State net metering law passed in 2006.
2.7	Renewable energy development issues (zoning, siting, etc.)					
2.8	Technology-focused initiatives (biomass co-firing, energy storage, fuel cells, etc.)					
ES-3	FOSSIL FUEL AND NUCLEAR ELECTRICITY					
3.1	Advanced fossil fuel technology (e.g. IGCC, CCSR) incentives, support, or requirements					
3.2	Nuclear power support and/or incentives					
3.3	Efficiency improvements and repowering existing plants					
3.4	Technology-focused initiatives					

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions in WA State
ES-4	FUEL PRODUCTION, PROCESSING AND DELIVERY					
4.1	Oil and gas production: GHG emission reduction incentives, support, or requirements					
4.2	Natural gas transmission and distribution					
4.3	Oil Refining: GHG emission reduction incentives, support, or requirements					
4.4	Coal Production: GHG emission reduction incentives, support, or requirements					
4.5	Coal-to-liquids Production: GHG emission reduction incentives, support, or requirements					
4.6	Low-GHG Hydrogen production incentives and support					
ES-5	CARBON CAPTURE AND STORAGE OR REUSE					
5.1	CCSR incentives, requirements and/or enabling policies (administration, regulation, liability, incentives)					
5.2	R&D for CCSR					
ES-6	OTHER ENERGY SUPPLY OPTIONS					

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions in WA State
6.1	Transmission system upgrading					
6.2	Reduction of transmission and distribution line losses					
6.3	General distributed generation support (interconnection rules, net metering, etc.)					
6.4	Environmental (GHG emissions) disclosure					House Bill 2565 (Fuel Mix Disclosure Law) requires retail electricity suppliers in Washington to provide a disclosure label to their retail customers.